

# Enfield Clean Energy Newsletter

## The Committee

The Enfield Clean Energy Committee is a Town Committee made up of Enfield Residents interested in promoting Clean Renewable Energy.

### The team members:

Jeff Myjak—Chair  
Ray Gwozdz - V. Chair  
Virginia Higley  
Steve Moriarty  
Greg Mark  
Doug Lombardi

### LIAISONS :

Town Council:  
Tom Kienzler

Staff:  
Joel Cox

Interested in joining our team? Send a note to [CleanEnergy@Enfield.org](mailto:CleanEnergy@Enfield.org) and we will send you an application.



## Points:

When we reach 200 points, we will be 1 step closer to getting a 2kw solar system.

Each Clean Option purchase is worth 1 point. Each Solar or Geothermal system is worth 3points.

Clean Option Points	<b>172</b>
System Points	<b>87</b>
<b>Total Points</b>	<b>259</b>

## Volume 1, Issue 12

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## Creepy Signs Your Home is Losing Energy

Those cobwebs in the corner are more than just a cleaning nuisance! Cobwebs are a sign that there are open cracks in your walls and floor that are allowing little creepy crawlies into your home. That also means cold autumn air is rushing into your cozy living space!

Reduce heating bills, and stop spiders from entering your home by checking cracks in your window sills, around window frames, between floor boards, walls, ceilings, and doors. Use clear caulk to seal these spaces, and use weather stripping around doors. Sealing up cracks in your home will prevent cobwebs from forming,

and will tighten up your house for increased comfort.

You can have a professional seal up your home and install weather stripping with a \$75 Home Energy Solutions Assessment. Sign up today—call 1-877-WISE-USE (1-877-947-3873).



Another creepy place your home is losing energy is with energy vampires! Energy vampires are electronic appliances that are constantly using energy- even when you think they are off. Your electronics emit telltale signs that can help you catch them. Some emit light, like DVD players, and others might make a noise, like a laptop. A

few, like a cell phone charger, might be warm to the touch. Keep the vampires at bay by unplugging those energy suckers!

Photo credit: [morebyless](#)



## Microgrids Coming to Enfield

Microgrids are a way to improve reliability in our electrical system. What is a Micro Grid? Microgrids are localized power grids. This can be key in many ways

First, the more power produced on a local level, the less a community will need to import from outside power plants or leech off the network. Many of the nation's energy woes are due to the electrical equivalency of a run on the bank. Temperatures suddenly skyrocket, so more people crank up the air conditioning -- which puts a huge drain on the grid. If there's not enough to go around, then not everyone gets power -- at

least until sufficient energy becomes available elsewhere on the grid.

Think of a home garden: The more produce you grow in your backyard, the less you're going to need to buy from the grocery store. And if you have enough tomatoes on hand or produce prices at the store become ridiculous, you could simply quit going to the grocery store

So how do we create these, what do we use for an energy source Fuel cell, micro tube, reciprocating engine, solar cell and wind farm development have reached the point where a small network of assorted gener-

ators can provide power to neighborhoods, retail areas and even industrial facilities. In a microgrid-enabled future, you might not have to drive to the hydroelectric dam one state away to see where your electricity comes from. Instead, you might find the source in the refrigerator-sized micro turbine behind your house and in the wind farm on the outskirts of town.

Microgrids will not only allow for the optimization of power sources, but also power uses. For instance, a properly equipped microgrid could deal with an energy shortage not by See Grids (pg2).

## CLEAN ENERGY OPTION FAQ'S

**Q:** Winter will soon be upon us. Can I still get a Home Energy Audit?

**A.** Yes. There is enough time to get an energy audit. For \$75, a preapproved company will come out, change your incandescent bulbs, put in weather stripping and caulking and perform several other heat saving functions. Call 1-877-WISE-USE to schedule an audit today.

**Q.** I am thinking of buying an electric vehicle. Are they all the same?

**A.** No. There are 3 types of electric cars—the all-electric, plug-in hybrid electric and hybrid electric vehicles. An all-electric vehicle has an electric motor and is only powered by electricity stored in a battery. Plug-in hybrids and hybrid electric vehicles have both an internal combustion engine and an electric motor and mostly use the battery to reduce idling and supplement the power from the gasoline engine. internal combustion engine or regenerative braking. Learn more about the different types of [electric vehicles](http://www.enfieldcleanenergy.net).

[www.enfieldcleanenergy.net](http://www.enfieldcleanenergy.net)

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## Britek Tires—The tires that never go flat



ENERGY RETURN WHEEL®

**ERW**

They say you cannot reinvent the wheel, but an inventor in Colorado named Brian Russell has done just that. With several patents already issued in the United States and patents pending internationally, his "Energy Return Wheel" (ERW®) could be a major weapon the country's efforts to dramatically reduce our dependency on foreign oil.

Airless tires have been proposed and demonstrated for cars many times, but the company is showing off a sophisticated new version intended for bicycles. Is this the end for bike pumps, or are the company's claims overinflated?

Britek Tire and Rubber has been working on an airless car tire for years that it calls the Energy Return Wheel. A rubber tread and sidewall is stretched over an internal scaffold

of folding of rods and cushions that allows the tire to give — and, the company claims, lose less energy to bumps and other compressions.

There are airless tires already, which use a foam to fill where air would normally be, but there are shortcomings that have prevented widespread adoption. Durability and cost are factors, though the benefit of not having to worry about tire pressure or flats is considerable.

Cyclists will no doubt be skeptical, which is understandable, and until these high-tech tires are put to the test by real people in ordinary biking situations, it's a good idea to take their potential benefits with a grain of salt.

The mountain bike version of the wheels incorporate lightweight 29in carbon fiber rims, and are open on the sides. Riders can adjust the rubber-

tensioning rods to make the wheels harder or softer, just as they would conventionally by adjusting the air pressure.

Adjustments can be made to let the tires run harder or softer, and while the model in the video has an open frame, sidewalls could be added to prevent detritus from building up inside the tire.

As that layer is compressed by knocks transmitted from the road or path, the stored energy is returned and converted into forward momentum.



## Grids (continued from Pg 1)

cutting off all power, but selectively killing feeds to certain ends. For instance, the system might prioritize vital communications and healthcare-related energy expenditures, while cutting power to superfluous uses or to appliances such as refrigerators which can usually get by with occasional, short-term power outages.

The state of Connecticut and The Department of Environment and Energy Protection are looking to see how these can be instituted in the state. They

are issuing \$15 million grants in an effort to bring these about.

But there are many challenges. These were discussed at a Seminar at The State Capital in October. The challenges are billing. If the owner of a microgrid puts the electricity onto the CL&P lines to move it from one area to another, how is that billed? How will CL&P know if the customer is using electricity from the grid or it is being supplied by the microgrid?

One of possible solutions is to "Hard Wire" the microgrid. The

owner of the microgrid would run wires directly from generation source directly to the locations that will use the electricity.

Other issues include what if the grid does not need the electricity being provided by the microgrid? How do they control exactly who can use the electricity from the microgrid?

For more information, check out <http://science.howstuffworks.com/environmental/energy/microgrid.htm>